

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of the claims in the application:

1. (Currently Amended) A multi-layer integrated semiconductor structure, comprising:
 2. a first semiconductor structure having a plurality of semiconductor elements associated with a first semiconductor signaling technology;
 4. a second semiconductor structure having a plurality of semiconductor elements associated with a second semiconductor signaling technology; and
 6. an interface disposed between ~~to couple~~ a first surface of the first semiconductor structure and ~~to~~ a first surface of the second semiconductor structure, ~~wherein~~ the interface having ~~includes~~ at least a first portion adapted to provide a communication interface between the first ~~and second~~ semiconductor ~~structures~~ ~~structure~~ and the second semiconductor ~~structure~~ and at least a second portion adapted to reduce electrical interference between ~~signals~~ propagating ~~along~~ the first ~~and second~~ semiconductor ~~structures~~ with at least one of the first and second interface portions corresponding to a conductive bonding interface which secures the first surface ~~of the first semiconductor structure to the first surface of the second semiconductor structure~~ and the second semiconductor structure.
1. 2. (Currently Amended) The multi-layer integrated semiconductor structure of claim 1, wherein the first portion of the interface includes an electrically conductive adhesive material ~~which secures the first surface of the first semiconductor structure to the first surface of the second semiconductor structure.~~
1. 3. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the first portion of the interface includes an electrically conductive material.
1. 4. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the second portion of the interface includes an electrically conductive adhesive material.
1. 5. (Original) The multi-layer integrated semiconductor structure of claim 4, wherein the electrically conductive adhesive material is grounded.

- 1 6. (Original) The multi-layer integrated semiconductor structure of claim 5, wherein the
- 2 electrically conductive adhesive material includes at least one of copper, gold, aluminum or a
- 3 metal alloy.

- 1 7. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the second
- 2 portion of the interface includes a dielectric adhesive material.

- 1 8. (Original) The multi-layer integrated semiconductor structure of claim 7, wherein the
- 2 dielectric adhesive material includes an organic material.

- 1 9. (Original) The multi-layer integrated semiconductor structure of claim 7, wherein the
- 2 dielectric adhesive material includes an inorganic material.

- 1 10. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the first
- 2 semiconductor signaling technology includes digital signaling related technology.

- 1 11. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the
- 2 second semiconductor signaling technology includes analog signaling related technology.

- 1 12. (Currently Amended) The multi-layer integrated semiconductor structure of claim 1,
- 2 wherein both the first and second interface portions are provided from an electrically conductive
- 3 adhesive which is adapted to adhesively couple the first surface of the first semiconductor
- 4 structure to the first surface of the second semiconductor structure.

- 1 13. (Original) The multi-layer integrated semiconductor structure of claim 12, wherein the first
- 2 surface of the first semiconductor structure corresponds to a top surface of the first
- 3 semiconductor structure.

- 1 14. (Original) The multi-layer integrated semiconductor structure of claim 13, wherein the first
- 2 surface of the second semiconductor structure corresponds to a bottom surface of the second
- 3 semiconductor structure.

1 15. (Original) The multi-layer integrated semiconductor structure of claim 13, wherein the first
2 surface of the second semiconductor structure corresponds to a top surface of the
3 second semiconductor structure.

1 16. (Original) The multi-layer integrated semiconductor structure of claim 12, wherein the first
2 surface of the first semiconductor structure corresponds to a bottom surface of the first
3 semiconductor structure.

1 17. (Currently Amended) The multi-layer integrated semiconductor structure of claim 16,
2 wherein the first surface of the second semiconductor structure corresponds to a top surface of
3 the second semiconductor structure. |

1 18. (Original) The multi-layer integrated semiconductor structure of claim 16, wherein the first
2 surface of the second semiconductor structure corresponds to a bottom surface of the second
3 semiconductor structure.

1 19. (Currently Amended) The multi-layer integrated semiconductor structure of claim 1,
2 wherein both the first and second portions of said interface are provided from an electrically
3 conductive bonding materialfurther including an adhesive disposed at least between the second
4 portion of the interface and the first surface of the second semiconductor structure. |